

the Ohio Valley, but it was not marked. In the far Northwest the unusually warm, dry weather was detrimental.

The first decade was nearly ideal in the spring-wheat belt and seeding had been nearly completed with favorable conditions for germination, except in some dry areas of South Dakota. The second decade was also mostly favorable for spring wheat, though some poor progress was reported in dry parts of the eastern belt. At the close of the month rain was generally needed throughout the belt, with the effect of the drought beginning to show in some sections, particularly in South Dakota and west-central Minnesota.

Oats were generally backward, but there was some improvement noted. Flax seeding had been retarded by dry soil in some central-northern sections, and growth was slow. Rice was doing well at the end of the month, while grain sorghums were coming up to good stands in the Great Plains.

Corn.—During the first decade corn planting made vigorous advance, under better weather conditions, in the middle Atlantic area and the central valley States. In Iowa progress of seeding was very good with planting ranging from well along to none accomplished. This work made generally good progress during the second decade with most of the crop in the heavy-producing sections, which was in marked contrast to last year. During the last decade corn made very good to excellent progress in the central trans-Mississippi States, where planting had been largely completed, but in the eastern Ohio Valley there was slow germination and growth, due to cool, rainy weather.

Cotton.—During the first decade the weather was rather too cool for best development of the cotton crop. Higher temperatures in the central and eastern portions of the belt were helpful and, for the most part, planting and replanting made good advance in the Carolinas and Georgia. In Texas less rain in the northeast and additional moisture in parts of the south and west made somewhat more favorable conditions, but growth was still slow, due to cool nights, and stands were generally poor to only fair. In Oklahoma the weather favored field operations, but planting progressed slowly in the east because of wet soil and the early seeded was reported as coming up to generally poor stands.

During the second decade better weather for the crop prevailed in most parts. In the Carolinas and Georgia moderate temperatures and showers favored germination of late-planted seed, and progress of the early planted was mostly fair to good. In Alabama and the States bordering on the Mississippi River progress was fair to very good. In Texas advance of early cotton was very good, but it was too wet in the northern portion of the State for favorable germination of late planted; the crop was generally late. In Oklahoma conditions were decidedly less favorable, with poor progress reported and planting and cultivation delayed.

During the last decade the weather was partly favorable. In the eastern half of the belt it was too cool, especially at night, but west of the Mississippi River conditions were generally favorable. In the Atlantic Coast States growth of cotton was slow to only fair, because of prevailing coolness, while in Alabama, Tennessee, and Mississippi warmer weather was needed, but progress was mostly fair. In Arkansas planting had been about completed with progress mostly very good, but in Louisiana advance was only fair. In Oklahoma the warmer, sunny weather made much better conditions and progress was good, chopping advanced, and stands were mostly fair to good. In Texas growth was also mostly good and favorable advance in chopping and cultivation was made.

Miscellaneous.—Meadows and pastures made fair to good progress in the South and East during the month, but slow growth was noted in the Northeast. There were some complaints of lack of moisture in the trans-Mississippi sections, and in the northern Great Plains there was also some unfavorable dryness reported. West of the Rocky Mountains moisture would have benefited rather generally, but in some parts there was excellent advance. Livestock continued to do well.

Potato planting was generally well along in northern sections at the close of the month with the crop doing well in most portions of the South. Truck crops were satisfactory, as a rule, and tobacco setting was well started in Kentucky. Cane made excellent growth in Louisiana and was well cultivated while sugar beet thinning was under way in some western parts. Citrus groves were in good condition in Florida and both citrus and deciduous fruits were doing well in California.

WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

NORTH ATLANTIC OCEAN

By F. A. YOUNG

The weather conditions over the North Atlantic Ocean during May were in marked contrast to those that prevailed in April, when heavy weather was unusually prevalent. During May, however, the number of days with gales was considerably below the normal over practically the entire ocean. In the 5° square between the thirty-fifth and fortieth parallels and the seventieth and seventy-fifth meridians and that between the fortieth and forty-fifth parallels and the fortieth and forty-fifth meridians gales occurred on four days, while in no other square were they reported on more than three days. Over the greater part of the northern steamer lanes moderate weather was the rule.

Both the Azores high and Icelandic low were comparatively inactive during the greater part of the month, with slight pressure gradients between these two centers of action.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, 8 a. m. (seventy-fifth meridian), North Atlantic Ocean, May, 1928

Stations	Average pressure	Departure ¹	High-est	Date	Low-est	Date
	Inches	Inch (°)	Inches		Inches	
Julianehaab, Greenland.....	30.11		30.42	17th.....	29.60	8th.
Belle Isle, Newfoundland.....	30.00	+0.06	30.40	24th.....	29.64	12th. ¹
Halifax, Nova Scotia.....	29.97	-0.03	30.18	15th.....	29.64	25th.
Nantucket.....	29.92	-0.09	30.30	14th ¹	29.62	25th.
Hatteras.....	29.92	-0.09	30.44	14th.....	29.62	24th.
Key West.....	29.96	-0.02	30.08	14th ¹	29.78	23d. ¹
New Orleans.....	29.98	+0.02	30.12	4th ¹	29.78	22d.
Cape Gracias, Honduras.....	29.88	+0.02	29.94	7th ¹	29.82	8th.
Turks Island.....	30.06	+0.05	30.12	16th ¹	29.92	6th. ¹
Bermuda.....	30.09	+0.01	30.32	15th.....	29.84	25th.
Horta, Azores.....	30.14	-0.11	30.32	19th.....	29.62	26th.
Lerwick, Shetland Islands.....	30.03	+0.23	30.40	31st.....	29.56	15th.
Valencia, Ireland.....	30.01	+0.06	30.31	13th.....	29.60	3d.
London.....	29.93	+0.01	30.28	26th.....	29.53	16th. ¹

¹ From normals shown on Hydrographic Office Pilot Chart, based on observations at Greenwich mean noon, or 7 a. m. seventy-fifth meridian.

² No normal available.
And on other dates.

Fog was unusually prevalent during the month over the region between the fortieth and forty-fifth parallels, west of the forty-fifth meridian, where it was reported on from 15 to 24 days; it also occurred on 13 days along the American coast between Hatteras and New York and on from 3 to 5 days over the eastern section of the steamer lanes.

On the 2d and 3d a moderate disturbance of limited extent was central about 500 miles north of the Azores, with northerly to northwesterly gales in the western quadrants. Charts VIII to XI cover the period from the 4th to the 7th, inclusive, and show the progress of this low, as well as the development of a depression in mid-ocean and one off the east coast of Florida, the latter occurring on the 7th.

On the 8th and 9th this last disturbance was over the American coast between Hatteras and New York, in which region moderate to strong northeast gales prevailed.

On the 11th Father Point was near the center of a low that drifted slowly eastward and on the 14th was over

eastern Nova Scotia. During this period moderate weather was the rule with a maximum wind force of 7, reported on the 13th and 14th.

On the 16th a low of slight intensity and extent was central near 42° N., 50° W., and on the 17th northerly gales occurred between the fifteenth meridian and the European coast.

On the 19th and 20th a moderate disturbance that moved but little and gradually filled in was central near 40° N., 45° W. From the 21st to 27th moderate weather was the rule over the greater part of the ocean, although during this period comparatively low pressure prevailed along the American coast from Key West to Halifax. There was also an area of low pressure over the eastern section of the steamer lanes that by the 28th had developed into a fairly severe disturbance, though of limited extent, central near 46° N., 35° W.

From the 29th to 31st low pressure continued over the Canadian Maritime Provinces, with moderate winds over the ocean as a whole.

OCEAN GALES AND STORMS, MAY, 1928

Vessel	Voyage		Position at time of lowest barometer		Gale began	Time of lowest barometer	Gale ended	Lowest barometer	Direction of wind when gale began	Direction and force of wind at time of lowest barometer	Direction of wind when gale ended	Highest force of wind and direction	Shifts of wind near time of lowest barometer
	From—	To—	Latitude	Longitude									
NORTH ATLANTIC OCEAN													
Steel Seafarer, Am. S. S.	Algeria	New York	36 20 N.	8 36 W.	May 1	Noon, 1	May 1	Inches 29.67	NNW	SE., 2	N	N., 8	NNW-N.
Waukegan, Am. S. S.	do	do	48 07 N.	23 18 W.	2	4 p., 2	3	29.49	WNW	W., 6	NW	NW., 8	S-WNW.
Michigan, Fr. S. S.	Bordeaux	Tampa	41 18 N.	21 20 W.	4	8 a., 4	4	29.49	WNW	WNW, 11	NW	WNW, 11	Steady.
Jobshaven, Du. S. S.	Rotterdam	Wilmington, N. C.	41 08 N.	44 20 W.	4	11 a., 5	6	29.48	W	W., 9	WNW	—, 9	W-WNW.
Coelleda, Am. S. S.	New York	Glasgow	42 39 N.	40 56 W.	6	8 a., 7	8	29.60	NW	NW., 7	N	NW., 8	NW-N.
San Gil, Br. S. S.	Honduras	Boston	36 35 N.	73 25 W.	7	4 a., 8	9	29.71	NE	NE., 10	NE	NE., 10	Steady.
Ipswich, Am. S. S.	Canal Zone	Newark, N. J.	39 28 N.	73 50 W.	6	5 a., 9	9	29.70	NE	NE., 8	NE	NNE., 10	Do.
Es. Almirante, Am. S. S.	New York	New Orleans	35 00 N.	75 18 W.	12	—, 12	16	30.14	N	N., 7	E	ENE., 8	
Dannedaika, Am. S. S.	Baytown, Tex.	Rotterdam	40 30 N.	50 00 W.	15	3 a., 16	16	29.70	NNW	SE., 8	SW	—, 9	
Dania, Dan. S. S.	Copenhagen	Boston	58 35 N.	2 10 W.	16	11 p., 16	18	29.05	N	N., 7	NNE	NNE., 9	N-NNE.
Modoc, U. S. S.	Halifax	Ice Patrol	42 52 N.	49 06 W.	18	6 p., 19	21	29.59	NE	NNW, 6	NNW	NW., 8	NE-NNW.
Outfield, Br. S. S.	New Orleans	Ghent	38 00 N.	51 20 W.	19	2 p., 19	20	29.72	NW	NW	NNW	—, 9	NW-N.
Tynefield, Br. M. S.	Barrow	Baytown, Tex.	25 54 N.	77 39 W.	23	1 p., 23	23	29.70	NW	NW., 8	NW	NW., 8	W-WNW-NW
Kerhonkson, Am. S. S.	Liverpool	Boston	47 59 N.	27 28 W.	26	4 p., 27	29	29.36	WNW	WNW., 8	NNW	—, 8	WNW-NNW.
City of Flint, Am. S. S.	Boston	London	42 55 N.	44 30 W.	28	1 p., 28	29	29.96	NNW	NNW., 8	NNW	—, 9	Steady.
Huron, Am. S. S.	New York	Dominica	37 12 N.	73 22 W.	28	2 p., 28	28	29.72	SSW	SSW., 8	SSW	SSW., 8	Do.
NORTH PACIFIC OCEAN													
Las Vegas, Am. S. S.	Yokohama	Portland	34 30 N.	138 55 E.	May 2	10 a., 2	May 2	29.58	NE	NE. 11	NE	NE., 11	Do.
Iwatesan Maru, Jap. S. S.	do	San Francisco	37 40 N.	145 20 E.	2	Mdt., 2	3	29.49	NW	NE.	N	NE., 9	N-NE.
Ayaha Maru, Jap. S. S.	Grays Harbor	Osaka	50 00 N.	177 58 E.	4	Mdt., 4	5	29.00	—	SSW., 10	—	—	
Chincha, Am. S. S.	New York	West Coast	14 49 N.	95 26 W.	5	Mdt., 5	6	—	SW	N., 8	N	N., 8	SW-W-N.
Toba Maru, Jap. S. S.	Yokohama	San Francisco	37 50 N.	145 30 E.	9	8 p., 9	10	29.76	S	SW., 7	NNW	SW., 8	3 pts.
West Caloot, Am. S. S.	Hong Kong	do	44 12 N.	147 31 W.	12	11 a., 12	13	29.01	S	S., 10	S	S., 10	SSE-S.
Ervikey, Nor. S. S.	Vancouver	Osaka	50 51 N.	177 27 W.	13	Mdt., 13	14	29.21	WSW	W., 10	WNW	W., 10	WSW-W.
Lubrico, Am. S. S.	San Francisco	Honolulu	37 17 N.	123 52 W.	14	2 a., 15	15	29.80	NNW	NNW, —	N	NW., 10	NNW-NW.
City of Victoria, Can. S. S.	Yokohama	San Francisco	41 53 N.	165 16 E.	23	9 a., 23	24	29.20	SSE	S., 7	W	W., 9	SSE-SW.
West O'Rowa, Am. S. S.	do	Portland	42 30 N.	155 00 E.	23	—, 23	25	29.38	WNW	WNW., 4	WNW	WNW., 9	Steady.
Wray Castle, Br. S. S.	Colon	Honolulu	15 20 N.	107 18 W.	24	3 p., 25	27	29.77	S	SW., 7	NNE	NW., 8	Backing.
City of Victoria, Can. S. S.	Yokohama	San Francisco	44 00 N.	161 10 W.	28	6 p., 29	30	28.80	SE	SW., 8	W	SW., 9	SW-W.
West O'Rowa, Am. S. S.	do	Portland	51 00 N.	159 00 W.	30	—, 31	31	29.09	NE	NE., 4	N	N., 8	NE-N-NE.
SOUTH PACIFIC OCEAN													
Stanley, Am. S. S.	Balboa	Sydney	30 30 S.	176 12 E.	7	10 a., 7	7	29.59	WNW	WNW	SSW	NNW., 9	NNW-SW.
Steel Trader, Am. S. S.	do	Melbourne	30 20 S.	169 56 E.	18	4 a., 19	19	29.77	W	W., 8	S	SW., 9	W-WSW.
Leopold L. D., Fr. S. S.	Panama	Auckland	33 36 S.	177 23 W.	27	6 p., 27	27	29.39	ENE	NW., 10	—	NW., 10	N-NNW.
SOUTH ATLANTIC OCEAN													
Orla, Nor. S. S.	Montevideo	Las Palmas	29 50 S.	48 03 W.	2	5 p., 3	4	29.61	SE	SE., 8	SE	SE., 9	Steady.